### PATENT COOPERATION TREATY

## **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| Applicant's or agent's file reference F1040628WO00  | FOR FURTHER ACTION  | See Form PCT/IPEA/416                                   |  |  |  |  |  |  |  |  |
|---|---|---|--|--|--|--|--|--|--|--|
| International application No.   | International filing date (day/month/year   | r) Priority date (day/month/year)                       |  |  |  |  |  |  |  |  |
| PCT/JP2004/011794   | 11.08.2004  | 26.08.2003  |  |  |  |  |  |  |  |  |
| International Patent Classification (IPC) or national classification and IPC  |   |   |  |  |  |  |  |  |  |  |
| H01M4/62, H01M4/02, H01M10/40, H01M6/16   |   |   |  |  |  |  |  |  |  |  |
| Applicant SANYO ELECTRIC CO., LTD.  |   |   |  |  |  |  |  |  |  |  |
|   | <ol> <li>This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</li> </ol> |   |  |  |  |  |  |  |  |  |
| 2. This REPORT consists of a total of   | 3 sheets, in  | ncluding this cover sheet.                              |  |  |  |  |  |  |  |  |
| 3. This report is also accompanied by Al  | NNEXES, comprising:   |   |  |  |  |  |  |  |  |  |
| a. (sent to the applicant and   | to the International Bureau) a total of   | 2 sheets, as follows:                                   |  |  |  |  |  |  |  |  |
| sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). |   |   |  |  |  |  |  |  |  |  |
| sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental                    |   |   |  |  |  |  |  |  |  |  |
| Box.  | D   | number of electronic and establish                      |  |  |  |  |  |  |  |  |
| b. [_] (sent to the International l   | Bureau only) a total of (indicate type and  | number of electronic carrier(s))                        |  |  |  |  |  |  |  |  |
| , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).                                |   |   |  |  |  |  |  |  |  |  |
| 4. This report contains indications relating  |   |   |  |  |  |  |  |  |  |  |
| l ⊠ .   | -   |   |  |  |  |  |  |  |  |  |
| Box No. I Basis of the  | report  |   |  |  |  |  |  |  |  |  |
| Box No. II Priority   |   |   |  |  |  |  |  |  |  |  |
| Box No. III Non-establis  | shment of opinion with regard to novelty,   | , inventive step and industrial applicability           |  |  |  |  |  |  |  |  |
| l <u></u>   | ty of invention   |   |  |  |  |  |  |  |  |  |
|   | atement under Article 35(2) with regard to dexplanations supporting such statement  | to novelty, inventive step or industrial applicability; |  |  |  |  |  |  |  |  |
| Box No. VI Certain doc  | uments cited  |   |  |  |  |  |  |  |  |  |
| Box No. VII Certain defe  | ects in the international application   |   |  |  |  |  |  |  |  |  |
| Box No. VIII Certain observations on the international application  |   |   |  |  |  |  |  |  |  |  |
| Date of submission of the demand  | Date of completion  | on of this report                                       |  |  |  |  |  |  |  |  |
|   |   |   |  |  |  |  |  |  |  |  |
| Name and mailing address of the IPEA/JP   | Authorized office   | <b>x</b>  |  |  |  |  |  |  |  |  |
| Facsimile No.   | Telephone No.   |   |  |  |  |  |  |  |  |  |

Translation

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/011794

| Box | No. I   | Basis of the report   |  |                                       |  |  |  |  |  |
|-----|---|---|--|---------------------------------------|--|--|--|--|--|
| 1.  |   | to the language, this report is based on the internation der this item.   | nal application in the language in which it  | was filed, unless otherwise           |  |  |  |  |  |
|     | This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of: |   |  |                                       |  |  |  |  |  |
|     | international search (Rule 12.3 and 23.1(b))  |   |  |                                       |  |  |  |  |  |
|     |   | publication of the international application (Rule 12.4)  |  |                                       |  |  |  |  |  |
| ,   | With regard   | international preliminary examination (Rule 55.2 and/o  | report is based on (replacement sheets wh  | nich have been furnished to the       |  |  |  |  |  |
| 2.  | receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to                        |   |  |                                       |  |  |  |  |  |
|     | this report):   | ternational application as originally filed/furnished   |  |                                       |  |  |  |  |  |
|     | $\overline{\bowtie}$  | escription:   |  |                                       |  |  |  |  |  |
|     | pages   |   |  | as originally filed/furnished         |  |  |  |  |  |
|     | pages   |   |  |                                       |  |  |  |  |  |
|     | pages   |   |  |                                       |  |  |  |  |  |
|     | the cla   |   | · · · · · · · · · · · · · · · · · · ·  |                                       |  |  |  |  |  |
|     | nos.  | 5, 8-10, 12-13  |  | as originally filed/furnished         |  |  |  |  |  |
|     | nos.*   | 3,0-10,12-13  |  | ny statement) under Article 19        |  |  |  |  |  |
|     |   |   | received by this Authority on 13.12  |                                       |  |  |  |  |  |
|     | nos.*   | 1,5 1,0 1,11  |  |                                       |  |  |  |  |  |
|     | $\square$   |   | <u> </u>   |                                       |  |  |  |  |  |
|     |   | awings:<br>5  |  | as originally filed/furnished         |  |  |  |  |  |
|     | sheets  |   | received by this Authority on  |                                       |  |  |  |  |  |
|     | sheet:  |   |  |                                       |  |  |  |  |  |
|     |   |   |  |                                       |  |  |  |  |  |
|     | <b>K</b> ZI   | uence listing and/or any related table(s) - see Supplem   | iemai Box Relating to Sequence Listing.  |                                       |  |  |  |  |  |
| 3.  | ∐ The a   | mendments have resulted in the cancellation of:   |  |                                       |  |  |  |  |  |
|     |   | the description, pages  |  |                                       |  |  |  |  |  |
|     |   | the claims, nos. 2,14-17  |  | · · · · · · · · · · · · · · · · · · · |  |  |  |  |  |
|     |   | the drawings, sheets/figs   |  |                                       |  |  |  |  |  |
|     | 片   | the sequence listing (specify):   |  |                                       |  |  |  |  |  |
|     | _ 니   |   |  |                                       |  |  |  |  |  |
| 4.  | This they   | report has been established as if (some of) the amend<br>have been considered to go beyond the disclosure as fi | iments annexed to this report and listed be<br>led, as indicated in the Supplemental Box | (Rule 70.2(c)).                       |  |  |  |  |  |
|     |   | the description, pages  |  |                                       |  |  |  |  |  |
|     |   | the claims, nos.  |  |                                       |  |  |  |  |  |
|     | the drawings, sheets/figs   |   |  |                                       |  |  |  |  |  |
|     |   | the sequence listing (specify):   |  |                                       |  |  |  |  |  |
|     | any table(s) related to sequence listing (specify):   |   |  |                                       |  |  |  |  |  |
|     | * If item 4 applies, some or all of those sheets may be marked "superseded."  |   |  |                                       |  |  |  |  |  |

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/011794

| Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |        |    |      |  |     |
|--------------|---|--------|----|------|--|-----|
| 1. Statement |   |        |    |      |  |     |
| Novelty (    | (N)   | Claims | 1, | 3-13 |  | YES |
|              |   | Claims |    |      |  | NO  |
| Inventive    | e step (IS)   | Claims | 1, | 3-13 |  | YES |
|              |   | Claims |    |      |  | NO  |
| Industria    | l applicability (IA)  | Claims | 1, | 3-13 |  | YES |
|              |   | Claims |    |      |  | NO  |
|              |   |        |    |      |  |     |

2. Citations and explanations (Rule 70.7)

Claims 1 and 3 to 13 are novel and involve an inventive step.

The feature wherein a conductive material with an average particle diameter of not less than 0.2 µm and not more than 5.0 µm is provided in the layer of a positive electrode active material within the non-aqueous electrolyte battery that is set forth in claims 1 and 3 to 13 is not disclosed in any of the documents that are cited in the international search report or in the documents JP 2002-324544 A ((Mitsubishi Cable Ind., Ltd.), 08 November 2002) and JP 2002-358951 A ((G. S. Melcotec Co., Ltd.), 13 December 2002), which are newly cited in the second written opinion; furthermore, the invention in question would not have been obvious to a person skilled in the art.